

**WHAT IS CLAIMED IS:**

~~1.~~ A remote management method of cellular telephone data in which a computer equipped with a modem is used, the method comprising the steps of:

- 5           a calling party entering a remote data update mode;  
          a called party entering a remote data update mode;  
          the calling party making a call to the called party;  
          the called party answering the call; and,  
          inputting or modifying data in the cellular telephone using the computer.

10           2. The remote management method of cellular telephone data as set forth in Claim 1, wherein said calling party is the cellular telephone and said called party is the computer.

15           3. The remote management method of cellular telephone data as set forth in Claim 1, wherein said calling party is the computer and said called party is the cellular telephone.

~~4.~~ A remote management method of cellular telephone data in which a computer equipped with a wireless modem is used, the method comprising the steps of:

- 20           a calling party entering a remote data update mode;  
          the calling party making a call to a called party;  
          a cellular telephone exchange sending a ring signal to the called party while at the same time informing the called party that the calling mode is a remote data update

mode;

the called party answering the call; and,

inputting or modifying data in the cellular telephone using the computer.

- 5            5. The remote management method of cellular telephone data as set forth in Claim 4, wherein said remote data update mode is notified by setting and transmitting specific bit of service option data.

10            ~~X~~ A remote management method of cellular telephone data in which a computer equipped with a modem is used, the method comprising the steps of:

              a calling party entering a remote data update mode;

              the calling party making a call to the called party;

              the called party answering the call;

              the calling party informing the called party using an In-Band signal that the

15    calling mode is a remote data update mode;

              the called party entering the remote data update mode; and

              inputting or modifying data in the cellular telephone using the computer.

20            ~~X~~ A remote management method of cellular telephone data in which the method of transmitting and receiving user data between two cellular telephones comprises the steps of:

              a calling party entering a remote data update mode;

              a called party entering a remote data update mode;

              the calling party making a call to a called party;

the called party answering the call; and,

user data being transmitted and received between the two cellular telephones.

5     ~~8.~~ A remote management method of cellular telephone data in which the  
method of transmitting and receiving user data between two cellular telephones  
comprises the steps of:

    a calling party entering a remote data update mode;

    the calling party making a call to a called party;

10     a cellular telephone exchange sending a ring signal to the called party while at  
the same time informing the called party that the calling mode is a remote data update  
mode;

    the called party answering the call; and,

    user data being transmitted and received between the two cellular telephones.

15     ~~9.~~ A remote management method of cellular telephone data in which the  
method of transmitting and receiving user data between two cellular telephones  
comprises the steps of:

    a calling party entering a remote data update mode;

    the calling party making a call to a called party;

20     the called party answering the call;

    the calling party informing the called party using an In-Band signal that the  
calling mode is a remote data update mode;

    the called party entering a remote data update mode; and,

    inputting or modifying data in the cellular telephone using the computer.

10. A remote management method of mobile communication terminal data wherein user data of a mobile communication terminal are managed in a remote manner using a computer connected to Internet, the method comprising:

5           the first step in which a data interfacing apparatus assigns an IP address to said mobile communication terminal and connects said mobile communication terminal to the IP address of said computer in compliance with the demand for call connection from said mobile communication terminal, as an additional service mode for inputting and modifying said user data has been set up as a calling mode;

10           the second step in which said mobile communication terminal checks if there is a demand for data transmission from said computer;

          the third step in which if there is a demand for data transmission, said computer, in response thereto, displays the data provided from said mobile communication terminal on the screen so as for the user to modify the provided data, stores the data modified by the user, and provides the modified data to said mobile communication terminal in a wireless manner upon user's instruction; and,

          the fourth step in which if there is no demand for data transmission, said mobile communication terminal demands desired data of said computer and receives and stores said data transmitted from said computer in a wireless manner via said Internet network.

20           11. The remote management method of mobile communication terminal data as set forth in Claim 10, in which said first step further comprises:

- 1-1)   said user sets up said additional service mode as a calling mode;
- 1-2)   said mobile communication terminal demands a call connection with

said computer via Internet for the additional service;

1-3) said data interfacing apparatus assigns an IP address needed for call connection to said mobile communication terminal and attempts connection of said mobile communication terminal to the IP address of said computer;

1-4) said mobile communication terminal checks if the call connection has successfully been made;

1-5) the process proceeds to said step 1-1) if the call connection has not been made in step 1-4); and,

1-6) the process proceeds to said second step if the call connection has been confirmed in step 1-4).

12. A remote management method of mobile communication terminal data wherein user data of a mobile communication terminal are managed in a remote manner using a computer connected to the Internet, the method comprising:

the first step in which a data interfacing apparatus assigns an IP address to said mobile communication terminal and connects said mobile communication terminal to the IP address of said computer in compliance with the demand for call connection from said computer, as an additional service mode for inputting and modifying said user data has been set up as a called mode;

the second step in which said mobile communication terminal checks if there is a demand for data transmission from said computer;

the third step in which if there is a demand for data transmission, said computer, in response thereto, displays the data provided from said mobile communication

terminal on the screen so as for the user to modify the provided data, stores the data modified by the user, and provides the modified data to said mobile communication terminal in a wireless manner upon user's instruction; and,

the fourth step in which if there is no such demand, said mobile communication terminal demands desired data of said computer and receives the desired data from said computer in a wireless manner via Internet and further stores said data.

13. The remote management method of mobile communication terminal data as set forth in Claim 12, in which said first step further comprises:

10 1-1) said user sets up said additional service mode as a called mode;

1-2) said computer demands a call connection with said mobile communication terminal via Internet;

1-3) the data interfacing apparatus assigns an IP address needed for call connection to said mobile communication terminal in compliance with said demand for call connection from said computer;

1-4) with said IP address assigned, said mobile communication terminal checks if the call connection with said computer has successfully been made while maintaining the called mode for some time until a call is connected with said computer;

1-5) if the call connection has not been made in step 1-4), the process proceeds to said step 1-1); and,

1-6) if the call connection has been confirmed in step 1-4), the process proceeds to said second step.

14. The remote management method of mobile communication terminal data as

*Claim 10*

set forth in ~~any one of Claims 10 or 12~~, wherein said third step further comprises:

<sup>1</sup>

3-1) said computer displays the data provided by said mobile communication terminal on the screen in response thereto so as for the user to modify said data and stores the data modified by said user in order to provide them for said mobile communication terminal;

3-2) said mobile communication terminal stores said modified data provided by said computer upon user's instruction;

3-3) said mobile communication terminal or said computer checks if there is a demand for termination of the call from opposite party;

3-4) the call between said mobile communication terminal and said computer is terminated if there is a demand to terminate the call in step 3-3); and,

3-5) the process proceeds to said second step if there is no such demand in step 3-3).

15. The remote management method of mobile communication terminal data as set forth in Claim 14, wherein said step 3-1) further comprises:

3-11) said mobile communication terminal transmits the data demanded by said computer to said computer in a wireless communication via Internet;

3-12) said computer displays the data transmitted from said mobile communication terminal on the screen so as for the user to modify said transmitted data;

3-13) said computer checks if the user has modified said displayed data;

3-14) said computer stores the data modified by the user in order to provide them for said mobile communication terminal in case that said data have been modified by said user in step 3-13); and,

3-15) the process proceeds to said step 3-3) if modification has been made in step 3-13).

16. The remote management method of mobile communication terminal data as set forth in Claim 14, wherein said step 3-2) further comprises:

3-21) said computer checks if there is a command by said user to transmit said modified data;

3-22) said computer transmits said modified data to said mobile communication terminal in a wireless communication via Internet if there is a command to transmit data in step 3-21);

3-23) said mobile communication terminal stores said data transmitted from said computer in a specific memory area; and,

3-24) the process proceeds to said step 3-3) if there is no command to transmit data in step 3-21).

17. The remote management method of mobile communication terminal data as set forth in ~~any one of Claims 10 or 12~~ <sup>claim 1</sup>, wherein said fourth step further comprises:

4-1) said mobile communication terminal demands desired data of said computer;

4-2) said computer transmits the demanded data to said mobile communication terminal in a wireless communication via Internet in accordance with the demand from said mobile communication terminal;

4-3) said mobile communication terminal stores the data transmitted from said computer in a specific memory area;



4-4) said mobile communication terminal or said computer checks if there is a demand from opposite party for termination of the call;

4-5) the call between said mobile communication terminal and said computer is terminated if there is a demand in step 4-4); and,

5 4-6) the process proceeds to said second step if there is no demand in step 4-4).

~~18.~~ A remote management method of mobile communication terminal data using a system comprising a wireless communication network comprising a cell site and a mobile communication exchange, a mobile communication terminal, a computer for managing data of said mobile communication terminal, a data interfacing apparatus connected to Internet and to said wireless communication network for interfacing the exchange to Internet, in which said mobile communication terminal is assigned a public static IP address and the data management program installed in said computer has therein said public static IP address of said mobile communication terminal which said data management program manages and the method comprises:

10

15

the step of setting up a network wherein said mobile communication terminal makes a PPP (Point-to-Point Protocol) setup with the data interfacing apparatus using said public static IP address;

the step of making a call connection wherein TCP/IP session is formed between said mobile communication terminal and said computer using said public static IP address and the IP address of computer, upon user's request for connection;

20

the step of confirming a demand for transmission wherein it is checked if there is a demand from computer for transmission of data;

the step of editing and storing data wherein said mobile communication

terminal transmits the demanded data using said TCP/IP session if there is a demand to transmit data and said computer displays the transmitted data so as for the user to confirm and edit said transmitted data, stores the edited final data in a storing means of said computer and transmits said edited final data to said mobile communication terminal so as for said mobile communication terminal to store said final data; and,

the step of receiving and storing data wherein the data transmitted from the computer are stored using TCP/IP session if there is no demand to transmit data.

19. The remote management method of mobile communication terminal data as set forth in Claim 18, in which user's single clicking of corresponding button of said management program enables said TCP/IP call connection to be executed.

20. The remote management method of mobile communication terminal data as set forth in Claim 18, in which said connection between the computer and Internet is made by at least one of the method using a communication network for setting up a network linked to Internet and a modem installed inside or outside of computer and the method using LAN linked to Internet and LAN card installed inside or outside of the computer.

21. The remote management method of mobile communication terminal data as set forth in Claim 20, in which said communication network for setting up a network and said modem are at least one of PSTN (Public Switched Telephone Network) and a conventional modem, ADSL (Asymmetric Digital Subscriber Line) and an ADSL modem, ISDN (Integrated Service Digital Network) and an ISDN terminal, and cable

TV network and a cable modem.

22. The remote management method of mobile communication terminal data as set forth in Claim 18, in which said step of editing and storing data further comprises:

5           the first step wherein said mobile communication terminal transmits corresponding data to computer;

          the second step wherein said computer displays the transmitted data so that the user can confirm and edit said transmitted data and the modified data can be transmitted to said mobile communication terminal if said data have been modified by said user;

10          the third step wherein said computer checks if the data have been modified or not, and if modified, said computer transmits the modified final data to said mobile communication terminal for storage upon user's instruction, and if not modified, the process proceeds to the following fourth step; and,

          the fourth step wherein said mobile communication terminal or said computer  
15       checks if there is a demand from opposite party for termination of the call, and if there is a demand to terminate the call, the call is terminated, and if there is no such demand, the process proceeds to said step of confirming a demand from said computer for transmission of data.

20          23. The remote management method of mobile communication terminal data as set forth in Claim 22, in which said third step further comprises steps of:

          3-1) checking if there is a command from user to transmit final data to said mobile communication terminal;

          3-2) said computer transmitting the modified final data to said mobile

communication terminal if there is a command from the user and the process proceeds to said fourth step if there is no such command; and,

3-3) said mobile communication terminal storing said data transmitted from said computer in a corresponding memory area.

5

24. The remote management method of mobile communication terminal data as set forth in Claim 18, in which said step of receiving and storing data further comprises:

the first step wherein said mobile communication terminal demands desired data of said computer;

10 the second step wherein said computer transmits said data desired by said mobile communication terminal to said mobile communication terminal;

the third step wherein said mobile communication terminal stores said data transmitted from said computer in a predetermined memory area;

15 the fourth step wherein said mobile communication terminal and said computer checks if there is a demand from opposite party for termination of the call; and

the fifth step wherein the call between said mobile communication terminal and said computer is terminated if there is a demand to terminate the call, and if there is no such demand, the process proceeds to the step of confirming a demand from said computer for transmission of data.